A NON-POINT SOURCE POLLUTION CONTROL PROGRAM FOR AGRICULTURE IN GEORGIA

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REFERENCE: Proceedings of the 1993 Georgia Water Resources Conference, held April 20 and 21, 1993, at The University of Georgia, Kathryn J. Hatcher, Editor, Institute of Natural Resources, The University of Georgia, Athens, Georgia.

INTRODUCTION

Programs centered around water resources often tend to dwell on specific projects and actions with little emphasis on broader efforts - especially in rural areas. It is necessary to note that soil is still the worst pollutant in terms of volume and that most of the soil is transported from agricultural lands. Broad-based programs to reduce rural non-point source pollutants are key elements of state water resource issues and should be a consideration in all information and education endeavors.

BACKGROUND

A concern for the quality of our environment during the late 1960's and early 1970's led to the passage of the Federal Water Pollution Control Act of 1972 (Public Law 92-500).

Congress designated the Environmental Protection Agency as the agency in charge of carrying out the demands of P.L. 92-500. Until a Federal court ruling in 1975, EPA had concentrated only on point sources of pollution.

In Section 208, Congress had already established the mechanism for a coordinated, intensive attack on both point and non-point source water quality problems. Section 208 called for the development of water quality management plans involving federal, state, and local governments.

EPA published guidelines for drawing up these management plans and gave state governors the option of selecting state agencies to do it. Georgia's governor designated the Environmental Protection Division (EPD).

CREATION OF NON-POINT TASK FORCES

In addressing the non-point source requirements, the Environmental Protection Division organized seven technical task forces:

Agriculture/Irrigation
Residual Waste/Land Disposal
Forestry
Salt Water Intrusion
Mining
Hydrologic Modification
Construction

The role of each task force was to provide recommendations regarding the future direction of non-point source pollution control programs in their area of endeavor. Each inventoried the category, assessed the pollution potential, recommended best management practices, suggested institutional arrangements for implementation, and recommended research needs.

The Agricultural Task Force

In relation to Rural NPS, the agriculture task force, under leadership of the Georgia Soil and Water Conservation Commission, reviewed and assessed most of the available data. It concluded that agriculture in Georgia is contributing a significant but undetermined amount to the non-point source pollution of the state's waters.

The primary purpose of each of the task forces was to assist and provide recommendations to the Division to be included in a state water quality management plan. The task force concluded that current pollution and the risk of future pollution from agriculture can be reduced with sound management practices for chemical usage and best management practices for soil and water.

It was recommended that a non-regulatory program be established with adequately funded incentive measures to include soil and water conservation district cooperator long-range conservation plans. Emphasis would be placed on accelerating all on-going agricultural conservation programs. Best management practices (BMP's) were established to meet the goals of conservation districts and specifications of the USDA Soil Conservation Service.

In the absence of water quality specifications relative to agriculture, a guideline was established to hold average soil loss to not more than 5 tons/acre/year. Potential non-point agricultural sources of surface and groundwater pollution were indentified to include sediment, pesticides, fertilizer, plant and animal wastes, and residue from cropland, grazing areas, and farm wood lots. Reduction or elimination, and sometime collection, of these pollutants in runoff, seepage, and percolation is necessary to protect the quality of the state's waters.

Project type works such as impoundments or traps provided in P.L. 566, or pooling agreements provided in

the Agriculture Conservation Program (A.C.P.), offer potential control of pollutants from agricultural lands.

PROGRAMS OF SUPPORT

USDA-ASCS Conservation Programs

There are several conservation programs administered by the USDA-ASCS which serve to support agricultural non-point source pollution control efforts.

Conservation Reserve Program. The CRP has been continued as part of the Food, Agriculture, Conservation, and Trade Act of 1990. Producers may enroll land in the CRP under rules administered by ASCS county offices. A 10 to 15-year contract (depending on specific practices) to implement the conservation plan is signed by USDA and the producer.

Forestry Incentives Program. The primary objective of FIP is to increase the future yield of timber products while protecting soil and water resources on private, non-industrial land. FIP is a statewide program funded through the USDA and administered by the ASCS, with technical input provided by the Georgia Forestry Commission and SCS.

Agricultural Water Quality Incentive Program. The WQIP was authorized in the 1990 Farm Bill to assist landowners and farm operators in developing and implementing water quality protection. It uses incentive payments to encourage select management practices. Currently WQIP is being offered in 13 counties, but may be expanded to others.

Environmental Easement Program. The Environmental Easement Program is authorized to allow acquisition of permanent easements from willing owners to protect environmentally sensitive lands. Regulations for the implementation of this program have not been released and the program is not yet available to land-owners.

Conservation Planning and Technical Assistance. The SCS, as the technical arm of the USDA, often delivers and promotes these programs and has the responsibility for putting practices on the land.

LAND MANAGER OPTIONS

Land managers have three broad categories of actions available to control erosion and sediment. They are:

*Proper land use management

*Land treatment, which involves prescribed conservation practices.

*Structural measures, which control runoff and trap sediment.

Consideration is first given to established prevention techniques or management practices. Many potential pollution problems from nutrients and pesticides can be prevented through ordinary best management practices.

Some practices however, may control one source of pollution but create another. For example, contouring may concentrate runoff from large storms, or tile drainage may increase the transport of nitrate to surface waters. The total farm chemical yield is decreased when sediment yield is reduced. Success in decreasing sediment and farm chemical yields from cropland can be achieved by erosion and runoff control combined with efficient and optimum use of pesticides and fertilizers.

Soil and Water Conservation Districts

From the beginning, soil and water conservation districts in Georgia were major players in helping meet water quality goals. An example of early action to improve water quality can be found in the Ocmulgee River Soil and Water Conservation District.

Demonstration Projects

As far back as 1977, the Ocmulgee River Soil and Water Conservation District Board appointed a committee to study the possibility of having a soil and water conservation demonstration project to help promote Section 208 of the Federal Water Pollution Control Act. The result was a farm restoration demonstration March 27, 1978 on a farm near Unadilla in Dooly County with thousands of observers on hand.

The district demonstrated to the public its proven methods that would prevent soil erosion and productivity loss but could also show that those same methods could serve as approved non-point source pollution control practices. This project is significant because it was the precursor of hundreds more to follow showing Georgia landowners how to achieve water quality goals with voluntary efforts.

Each of the forty conservation districts in Georgia is now averaging sponsoring two conservation demonstrations per year. Most of these demonstrations have been devoted to animal and poultry waste and no-till demonstrations.

Gum Creek Project

In 1990 a three-year Gum Creek cost-sharing pilot water quality project was approved. A contract for $200,000 from Section 319 of the Water Quality Act was signed on October 18, 1990 and an expansion was signed April 28, 1992. This project is located in Crisp and Dooly counties.

The Soil and Water Conservation Commission received the $200,000 in addition to $40,000 of its own money. Most of these funds were earmarked for cost-sharing the installation of best management practices in the Gum Creek

project. This was significant in that it was the first time the state had ever cost-shared conservation practice implementation.

In addition to the state cost-share money, USDA/ASCS has allocated $50,000 for water quality practices in this project and another $50,000 is available through the Water Quality Incentive Program.

No-till Equipment Purchase

Conservation tillage is one of the best management practices for agricultural erosion and sediment control. During the period from 1986-1992, the Conservation Commission secured oil-overcharge funds to be used in the purchase of 56 tractors, 70 no-till drills, 18 hydroseeders and 4 terracing plows. With this equipment, districts have conducted approximately 850 on-farm demonstrations and tours.

Animal Waste Management

The Little River/Rooty Creek Agricultural Non-point Source Hydrologic Unit Water Quality Project is located in Morgan, Putnam, Jasper, Newton, and Walton counties. It consists of 246,881 acres with the highest concentration of dairies in the state. Because of this concentration, local farmers, soil and water conservation districts, and other groups were very concerned about water quality problems stemming from accumulations of animal wastes. The Conservation Commission acted to guide and assist these districts in procuring funds for expensive lagoon pumpout equipment.

The Commission contracts with the Oconee River Resource Conservation and Development Project Council to purchase the pumpout equipment. The RC&D Council gives the equipment to the Piedmont Soil and Water Conservation District for operation and maintenance. The pumpout service is then offered to farmers throughout the district at a nominal cost. The SCS and Extension Service provided the landowners with nutrient management plans which describe how much waste can be applied to fields and the nutrient values which can be expected from the waste.

Because animal waste lagoon pumping is expensive, many farmers choose not to go that route even with the availability of this equipment. Some were encouraged to instead construct artificial wetlands to handle lagoon overflows. Significant reduction in both nutrient and solids loading to area streams has occured on successfully constructed wetlands projects.

SUMMARY

All of Georgia's waters flow through or are recharged to considerable extent under agricultural or forested lands. All programs and efforts to conserve, improve, protect, preserve or insure water of high quality must acknowledge the necessity to begin at the beginning.

Programs to protect and improve water quality in the agrarian environment need greater emphasis in all statewide and regional planning. The technology is there and so is the willingness of the landowner to do his part. Assistance in any form in landowner efforts, whether in funding, research, information or manpower, is always welcomed and needed.